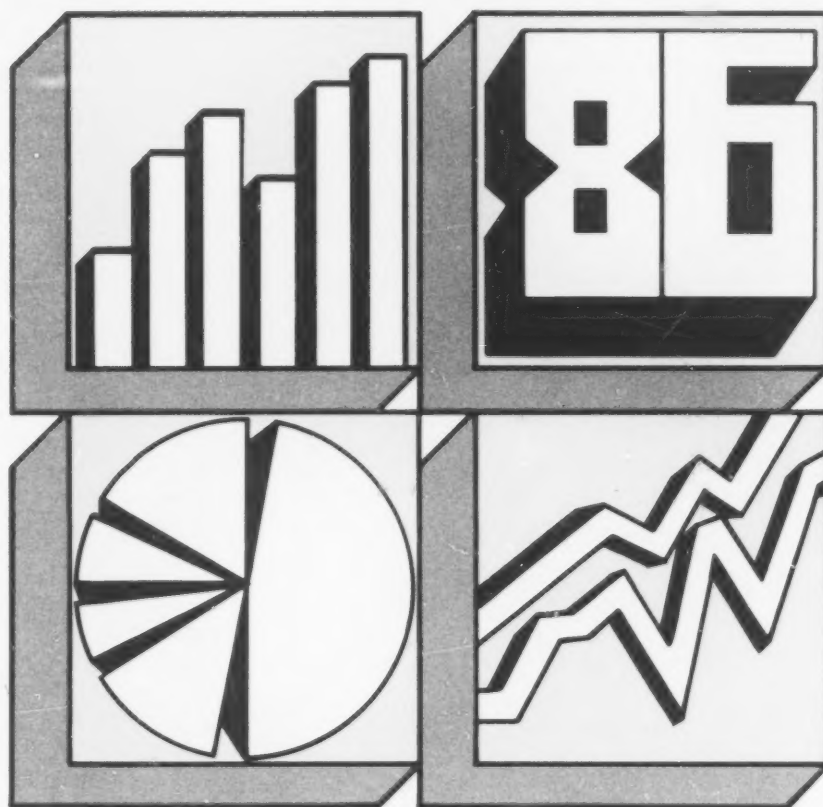


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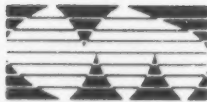
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This is the 1986 edition of an annual publication prepared at the direction of the IBFI Economic Research Committee for the benefit of the industry and its customers. Each edition contains a detailed review of the previous year's results and a five-year demand forecast. In addition, the results of any new research undertaken by the staff during the preceding twelve months are presented in these pages.

The author is responsible for all of the estimates and opinions in this volume. All charts and graphs are the work of the author. Every effort has been made to ensure accuracy but it of course cannot be guaranteed.

Doug Taylor

IMPLEMENTATION BY THE IBFI STAFF

Douglas C. Taylor Director, Economic and Market Research
Christina L. Hosp..... Economic and Market Research Associate

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EXECUTIVE SUMMARY

Forms industry growth slowed in 1985, as sluggishness in the general economy and unstable paper prices created uncertainty in the forms market. Nominal growth was less than 6%, with real growth around 4%.

Sales growth in the custom continuous and unit set product lines easily outpaced stock continuous, as brutal competition in this segment led to deflationary pricing conditions; lastly, sales in the salesbook/pegboard segment were much slower than in 1984.

Forms industry pricing was particularly unstable in the second half of 1985, following the failure of paper suppliers to push through a price increase. By April 1, 1986, however, it appeared that paper companies were successful in getting a new round of price increases accepted by the marketplace.

Depressed paper prices in 1985 improved gross profit margins for forms manufacturers; however, these margins narrowed later in the year, as users demanded that forms manufacturers pass on their lower costs.

In 1985 the overall U.S. economy limped through the third year of recovery, but its performance will improve in 1986; the dollar's decline in value (which will lower the trade deficit), the collapse of oil prices (which will keep inflation in check), and lower interest rates are the primary reasons for the economy's positive outlook in 1986.

The forms industry will experience real growth of about 5% in 1986, thanks to the stronger economy. The IBFI forecast for forms sales through 1990 is presented below. It presumes the U.S. economy will stay out of a recession for the balance of the 1980's.

U.S. BUSINESS FORMS SALES, 1985-1990
(Millions of Jan 1, 1986 Dollars at Shipment Values)

	1985	1986*	1987*	1988*	1989*	1990*
Custom Continuous	2,650	2,810	2,920	3,070	3,180	3,275
Stock Continuous	1,530	1,560	1,630	1,735	1,865	2,015
Unit Sets	1,415	1,470	1,490	1,530	1,555	1,565
Salesbooks, Pegboard	295	315	330	355	380	400
TOTAL	5,890	6,155	6,370	6,690	6,980	7,255

* Projections

Source: IBFI

1985 IN REVIEW

The forms industry experienced a definite slowdown in growth in 1985. A primary source of this slowdown was the sluggish performance of the overall U.S. economy, which fell well short of its dynamic performance in 1984. Another factor contributing to the industry's slower growth rate was the softness in demand for computer hardware and systems, as the bottom fell out of the home computer market and businesses began the long-overdue process of reassessing their computer needs.

As shown in Figure 1, nominal growth for the forms industry in 1985 was less than 6%. Stock continuous sales were just 2.5% above 1984 levels, as price competition in this product line led to deflationary pricing conditions. Both unit sets and custom continuous easily outperformed stock continuous by this

measure (sales growth), but the sales-book/pegboard segment slowed dramatically over 1984 levels. The problems in the sales-book/pegboard segment were likely the result of the economy's slower performance last year, as fewer new businesses were started and the failure rate of established businesses increased. Overall real growth for the industry was approximately 4% in 1985.

In 1985, the industry performed true to form in seasonal terms, having strong first and fourth quarters. Figure 2 shows the distribution of monthly retail forms sales in 1985 and the first two months of 1986. Two sets of data are provided in the graph: one is the raw data from IBFI's Monthly Confidential Sales Index Report, while the other is a 12-month weighted moving average that, in effect, smooths out the

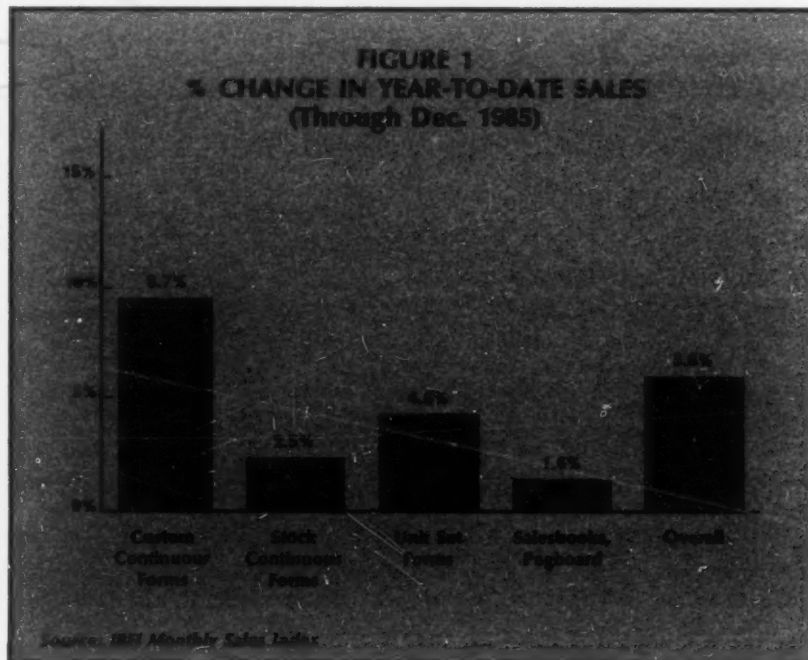
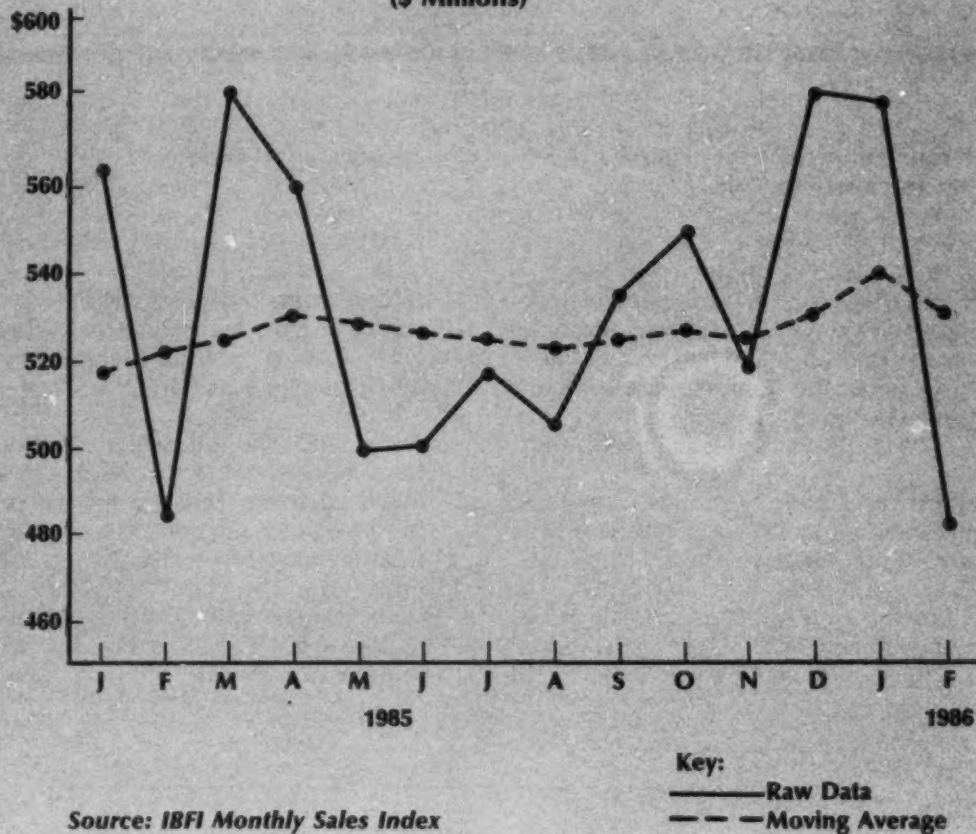


FIGURE 2
MONTHLY RETAIL FORMS SALES
(\$ Millions)



Source: IBFI Monthly Sales Index

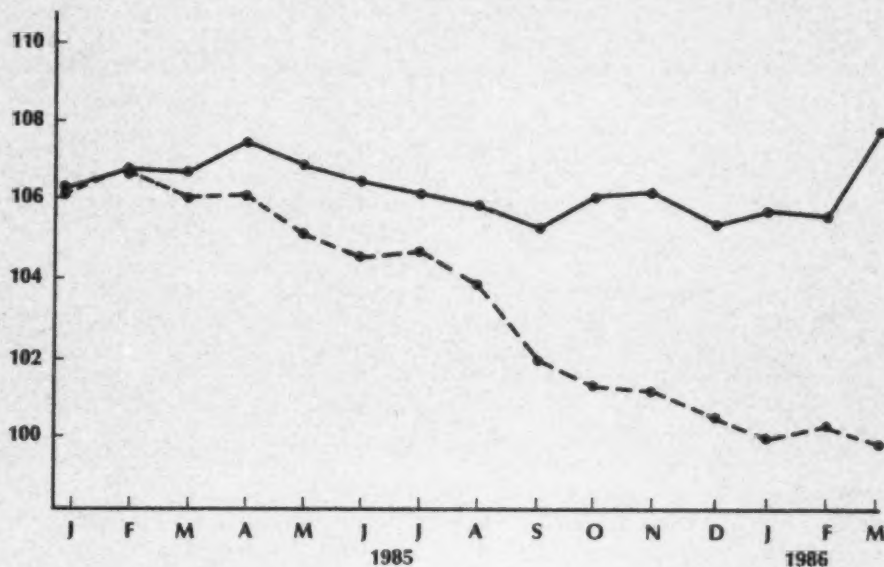
monthly fluctuations in the raw data. The results presented in this figure show that the second half of the year was somewhat stronger than the first half, and that the forms industry enjoyed a particularly strong fourth quarter, as expected.

Unstable paper prices led to strong downward pressure on forms prices in 1985. Figure 3 clearly illustrates this condition, especially the brutal price competition in the stock continuous segment. Figure 4 shows that unit sets and salesbooks experienced less severe fluctuations in producer prices than stock continuous

products. Overall, the producer price index for the forms industry dipped from 105.9 in January 1985 to 104.3 in December 1985.

Figures 3 and 4 also show a clear upturn in producer prices for custom continuous and unit sets in the first quarter of 1986. This reflects the impact of price increases announced by paper suppliers in February and April; as Figure 3 illustrates, the stock continuous segment remained immune to the effects of these price increases and continued its deflationary spiral.

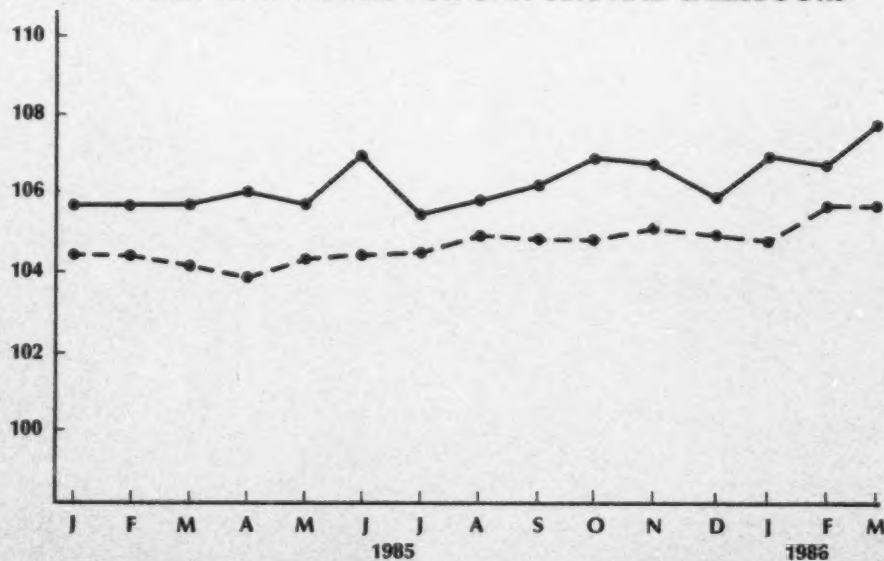
FIGURE 3
PRODUCER PRICE INDICES FOR STOCK AND CUSTOM CONTINUOUS



Source: Bureau of Labor Statistics
December 1983 = 100

Key:
— Custom Continuous
--- Stock Continuous

FIGURE 4
PRODUCER PRICE INDICES FOR UNIT SETS AND SALESBOOKS



Source: Bureau of Labor Statistics
December 1983 = 100

Key:
— Unit Sets
--- Salesbooks, Pegboard

PAPER REVIEW: SHIPMENTS, IMPORTS AND CAPACITY OUTLOOK

In 1985, the idea of a "fixed price" for paper became temporarily a thing of the past. Paper mills, burdened with operating capacity rates in the low 90 percent range, were caught in a buyer's market, as Figure 5 illustrates. Thus, they were forced to remain flexible on prices in order to meet the demands of the market.

The paper industry sought price increases in the Spring of 1985, but they were not supported by the marketplace. Following the collapse of these price increases, a period of widespread discounting ensued for the balance of 1985. Naturally, this instability in paper prices led to increased pressure on forms prices.

The paper industry announced a new round of price increases in January and April 1986; many forms manufacturers were probably hoping that, this time, the increases would stick — thus adding some pricing stability to the forms market. By April 1986 it was clear that these paper price increases were being supported, in varying degrees, by the marketplace.

Figure 6 provides quarterly 1985 data on average prices paid for 15 pound white forms bond by forms manufacturers; as one would expect, the graph shows that larger companies are the most capable at negotiating lower prices from suppliers.

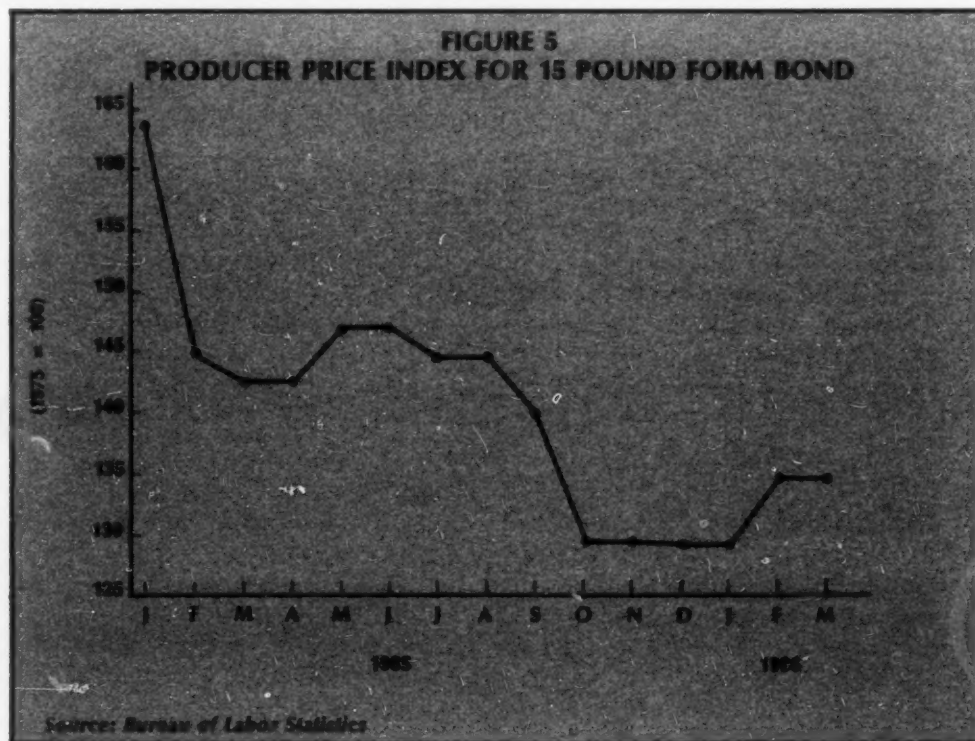
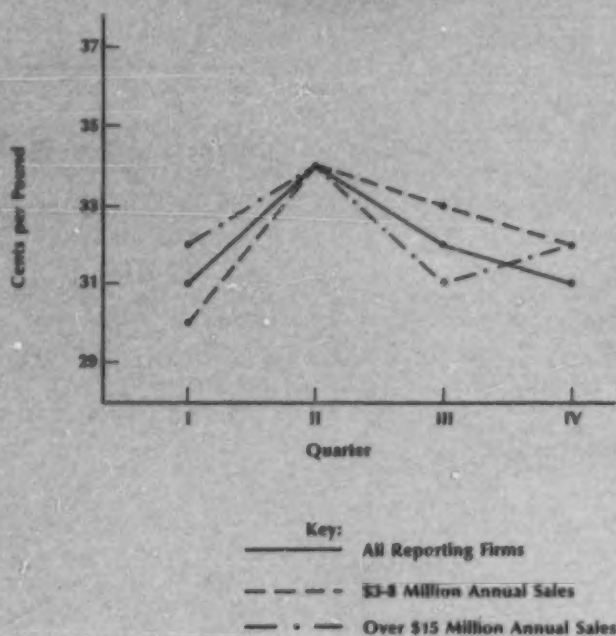


**FIGURE 6
AVERAGE PRICE PAID FOR 15-POUND
WHITE FORMS BOND, 1985**



Source: IBFI Business Conditions Survey

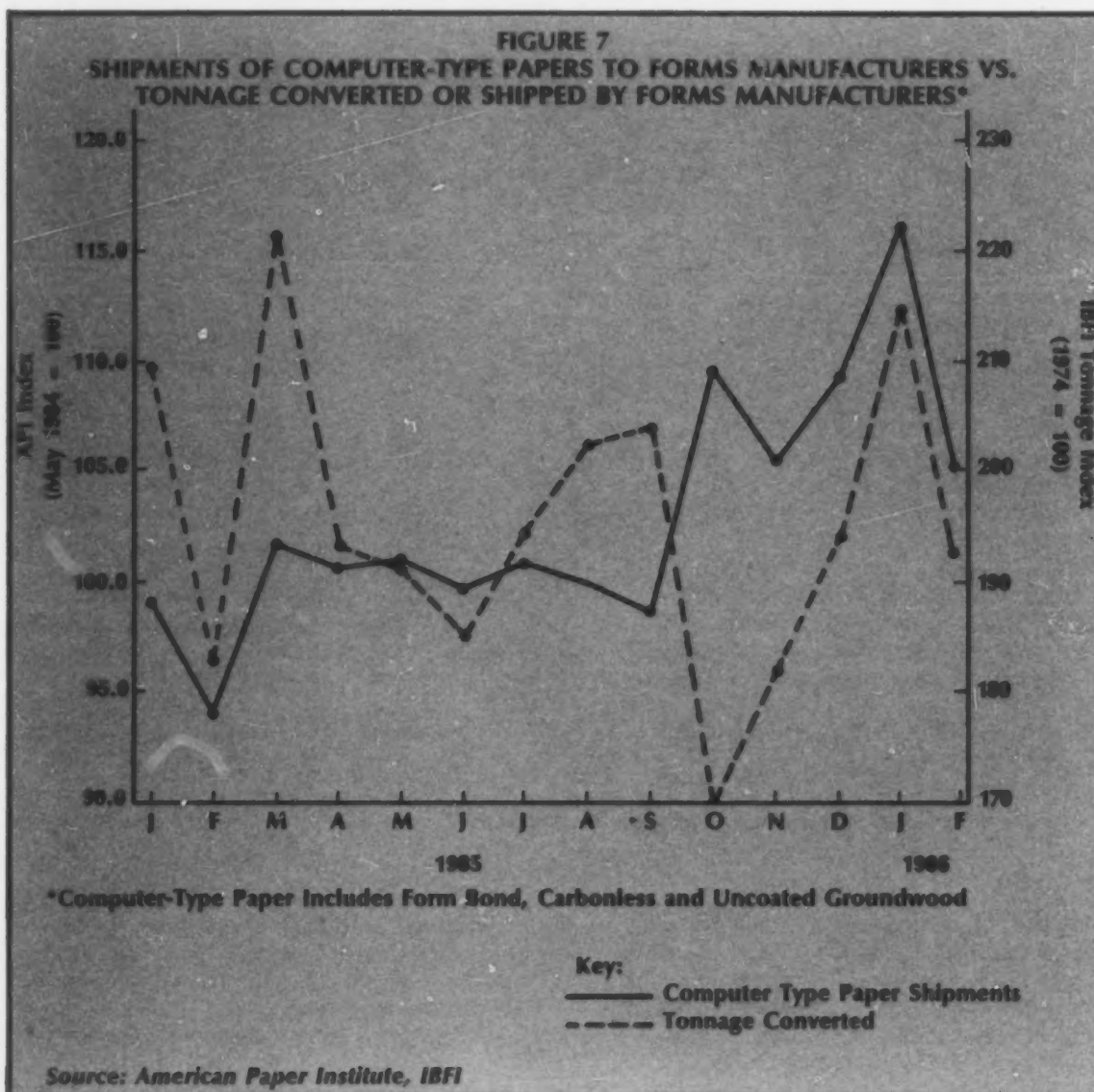
Imports of uncoated free sheet paper dropped significantly in 1985. Depressed paper prices in the U.S., primarily caused by overcapacity in the paper industry, clearly contributed to the reduction in U.S. paper imports in 1985. Other contributing factors were:

- the steady weakening of the U.S. dollar against major foreign currencies; its value dropped approximately 25% from February 1985 through February 1986, thus reducing the substantial price advantage that foreign producers enjoyed in 1984.
- the slowdown in the U.S. economy in 1985, which reduced the overall demand for paper in the economy.

The number of tons of uncoated free sheet paper imported into the U.S. in 1985 decreased about 24% from 1984 levels, according to the American Paper Institute (API).

Figure 7 compares the relative changes in tonnage converted by forms manufacturers against shipments of computer-type paper (form bond, carbonless, and uncoated groundwood) to forms manufacturers. It shows that the forms industry began building up its paper inventory level during the last four months of 1985, correctly anticipating increased forms demand through the last quarter of 1985 and into the first quarter of 1986.

Demand in the uncoated free sheet segment of the paper industry was strong throughout 1985 and into the first quarter of 1986. (For all of 1985, production of uncoated free sheet paper was 5.6% above 1984 levels, compared to a drop of 1.2% for total paper production in 1985.) Of course, this increased demand was not entirely attributable to demand for forms bond; much of the demand came from the production of office copy papers, e.g. cut sheet paper.



The U.S. paper industry's uncoated free sheet capacity is expected to increase by over 12% from 1985 to 1988, according to API. Capacity for thin papers and uncoated groundwood, however, is expected to show zero increase over the same time frame.

Almost 2.5 million tons of new printing and writing paper capacity are scheduled to come on line during the 1986-1988 period — for an average annual growth rate of 3.9%.

Carbonless: Since the 1985 edition of *Perspective*, IBFI has collected little new data on the carbonless share of multi-part continuous forms. However, in a survey that IBFI conducted of stock tab manufacturers, the carbonless share of multi-part stock continuous forms among the companies in the sample averaged 29%, with 71% being carbon-interleaved. (Appendix A provides other key results from this survey.)

INDUSTRY GROSS PROFITS AND CAPACITY UTILIZATION

Depressed paper prices in 1985 had the expected effect of improving gross profit margins for forms manufacturers — although the improvement was less for smaller manufacturers than for larger producers. Figure 8 shows how gross profits vary by product line for all forms manufacturers included in IBFI's quarterly Business Conditions Survey.

Figure 9 illustrates the narrowing of these margins that occurred as the year progressed, when the pressure on forms manufacturers to pass on their lower materials costs to the customer intensified.

Industry capacity utilization declined slightly in 1985. Fourth quarter median utilization was 64.8% for all firms reporting to the Business Conditions Survey, compared with 66.3% in the fourth quarter of 1984. Figure 10 portrays the quarterly utilization rates for medium and large firms, as well as for all firms that participated in the Business Conditions Survey.

Order backlogs in 1985 were also slightly below 1984 levels; Table 1 provides a quarterly breakdown of average weeks of order backlogs by company size.

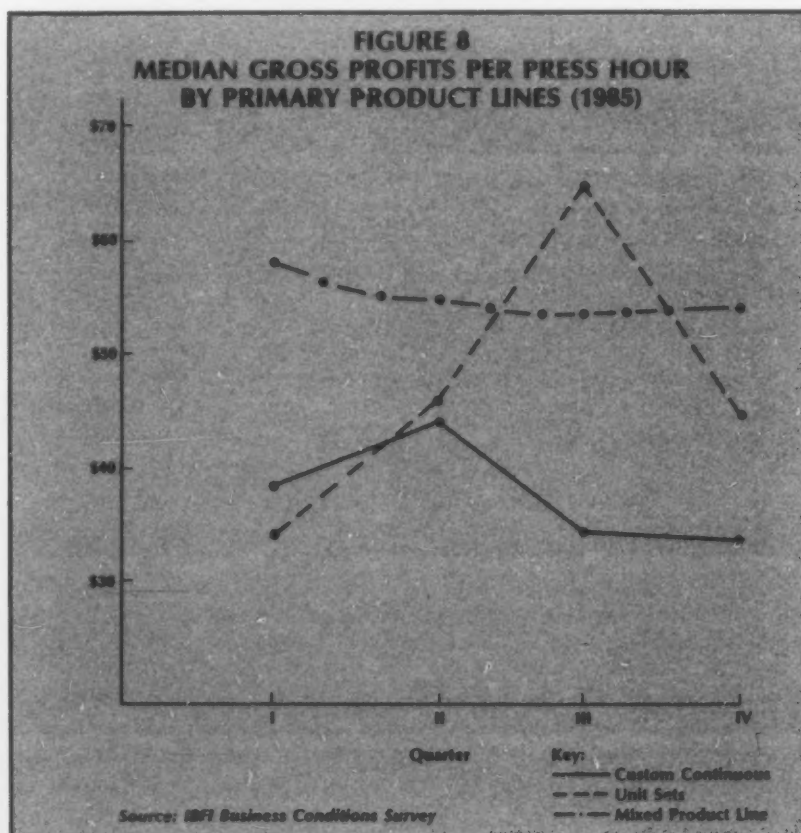


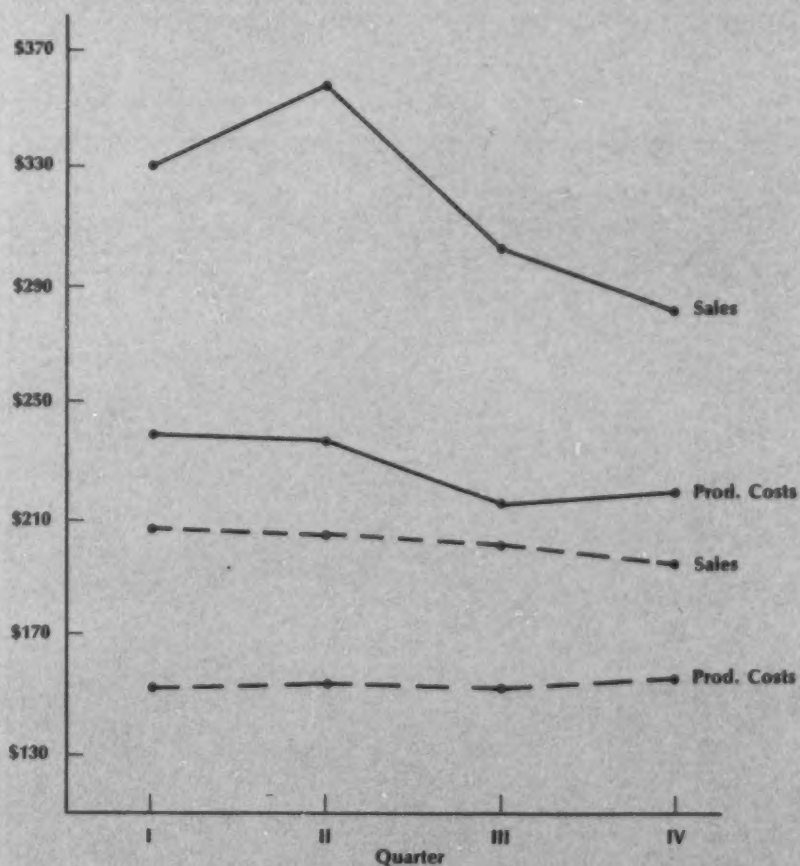
TABLE 1
AVERAGE WEEKS OF ORDER BACKLOG, 1985*

	Quarter			
	I	II	III	IV
All Reporting Firms	2.7	2.6	3.0	2.6
Under \$3M	1.3	1.4	1.4	1.7
\$3-8M	2.5	2.6	2.9	2.4
\$8-14M	3.2	2.5	3.2	2.1
Over \$15M	3.7	2.7	4.2	4.4

*At Actual Capacity Utilization

Source: IBFI Business Conditions Survey

FIGURE 9
MEDIAN SALES AND PRODUCTION COSTS PER PRESS HOUR (1985)



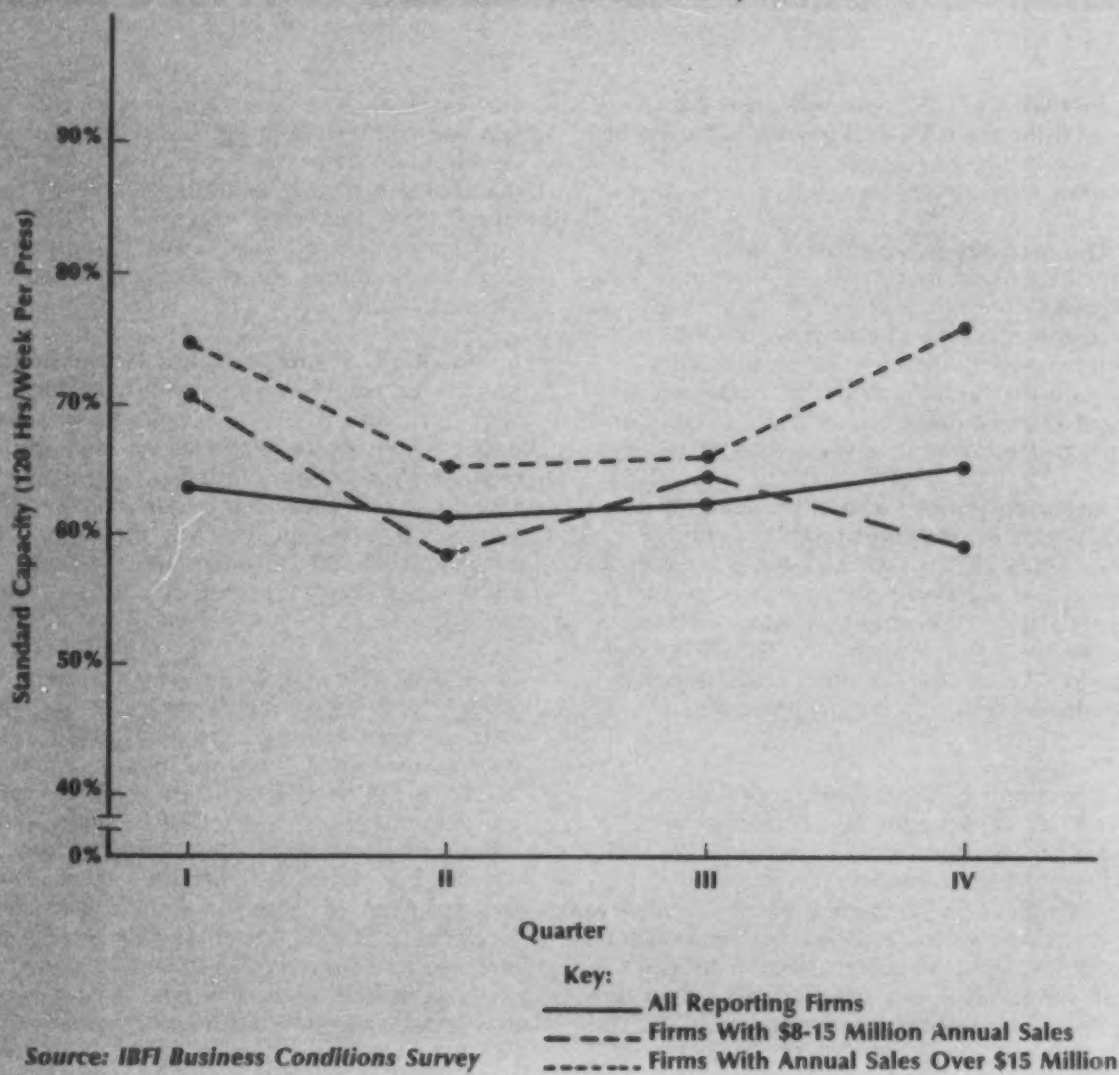
Source: IBFI Business Conditions Survey

Key:

— Over \$15 Million Sales Volume

--- All Reporting Firms

FIGURE 10
MEDIAN CAPACITY UTILIZATION, 1985



U.S. ECONOMIC REVIEW AND FORECAST

In 1985, the U.S. economy grew 2.2%, a far cry from the 6.5% real growth achieved in 1984. Generally, three factors accounted for the economy's slowdown:

The recovery was one year older. The economic expansion that began in November 1982 completed its third year in 1985; historically, as a recovery ages, the rate of growth winds down as capacity limits in labor and equipment are reached. (In 1985, the expansion also exceeded the average duration for a post-World War II peacetime recovery—34 months.)

Imported goods flooded the country in 1985, largely due to the strength of the U.S. dollar. Although the dollar's value in relation to other major currencies peaked early in the year (February), the positive effects of this drop in value were not felt until the tail end of the year. As a result, the country's trade deficit in 1985 skyrocketed to a record level of \$125 billion.

Consumer debt reached record levels. The current recovery began as a consumer-driven expansion as a great deal of pent-up demand from the 1981-82 recession was released in 1983 and 1984. By 1985, however, consumers' spending had taken its toll on their personal balance sheets: the amount of consumer installment credit outstanding increased by \$90 billion during the year, reaching a record level of \$542 billion. The burden of carrying this debt clearly made consumers more cautious in 1985 about making major purchases. For example, housing demand was less than expected despite lower interest rates. Also, many consumers demanded discount financing programs before they would purchase a new car.

However, despite these negative factors, the nation's stock market had a banner year. The Dow Jones Industrial Average increased 28% during the year, setting the stage for Wall Street's phenomenal 300 point advance during

the first quarter of 1986. One benefit of this rally was that the net worth of millions of stockholders was considerably improved. These stockholders, feeling wealthier, no doubt spent more money than they would have if the market hadn't been so bullish. This "wealth effect" served to stimulate the economy and keep the recovery rolling.

For the U.S. Congress, the federal deficit was the dominant economic story of 1985. Now in its fifth year as America's number one political football (having replaced inflation), the prospects for Congress applying a reasoned analysis to the issue of the deficit are growing increasingly dim. This has had the unfortunate consequence of leaving the typical citizen uninformed about the specific nature of the deficit problem.

The deficit is partly the result of the government's arcane accounting practices. For instance, the federal government, unlike most state governments, does not have a capital expenditures budget. Thus, if the Federal Highway Administration spends \$100 million to build a new highway in 1986, none of that spending is spread out over the useful life of the new road. Instead, the entire \$100 million is allocated to 1986 spending *even though the resource that was purchased will be consumed over the next 20 years.* The government's failure to distinguish between spending for consumption (e.g., paying workers' salaries) and spending for investment (e.g., building roads, funding R&D) seriously distorts the budget deficit issue.

Another way in which the perception of the deficit problem is distorted concerns the "present value" of the deficit. Due to inflation and the "time value" of money (i.e., one dollar today is worth more than one dollar a year from now), the approximately \$2 trillion cumulative federal budget deficit is actually worth far less in today's dollars.

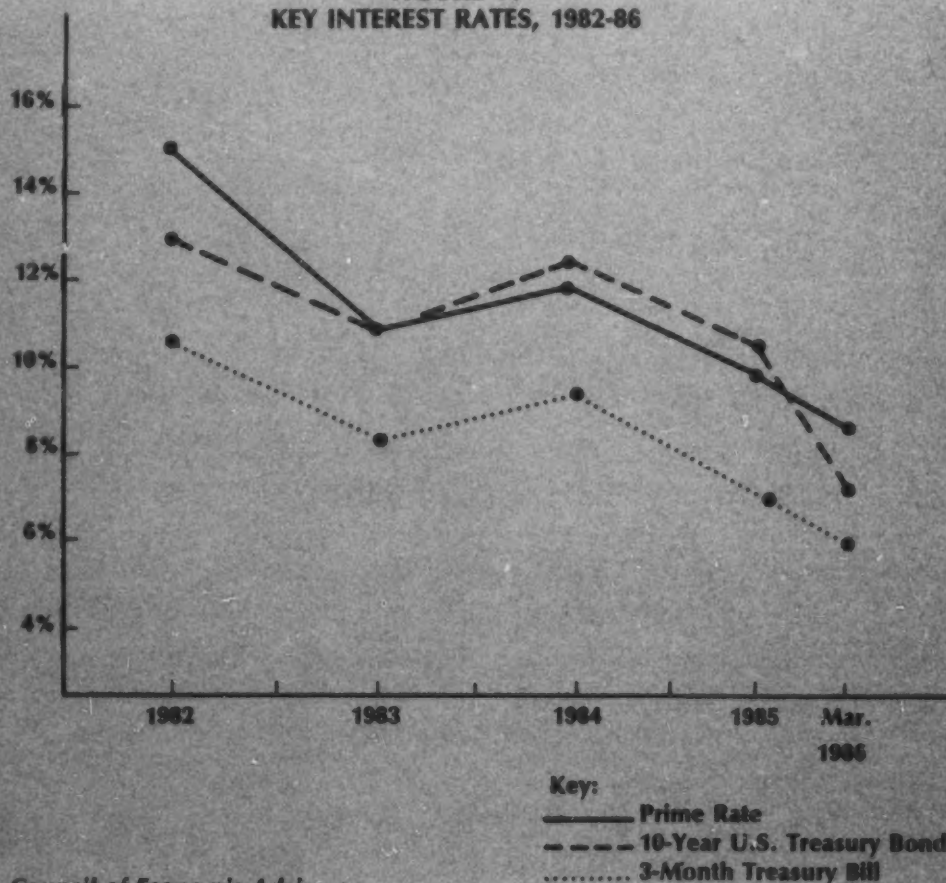
Despite the confusion surrounding the subject, most observers project that the deficit will be in decline for the balance of this decade. By April 1986, the Administration was projecting annual deficits of less than \$100 billion by 1990.

Two forces have brought about the decline in the deficit: the political consensus in Congress that resulted in passage of the Gramm-Rudman law; and lower interest rates. Although the constitutionality of the Gramm-Rudman law will probably not be decided by the U.S. Supreme Court before July 1986, the Act has already had some positive, albeit minor, impact on restraining the growth in Federal spending.

However, it is the drop in interest rates that has been most responsible for turning the deficit forecast around from one of runaway \$200 billion deficits to a more manageable \$100 billion annual shortfall.

The across-the-board drop in interest rates since 1984 has shocked the financial community. Since 1982, when the prime rate averaged 15% for the year, interest rates have fallen much farther than most economists predicted. Figure 11 shows the downward trend in rates for both long- and short-term securities. The prime rate was in the 9.5-10.5% range in 1985, and finally fell to 8.5% in April 1986.

FIGURE 11
KEY INTEREST RATES, 1982-86



Source: Council of Economic Advisors

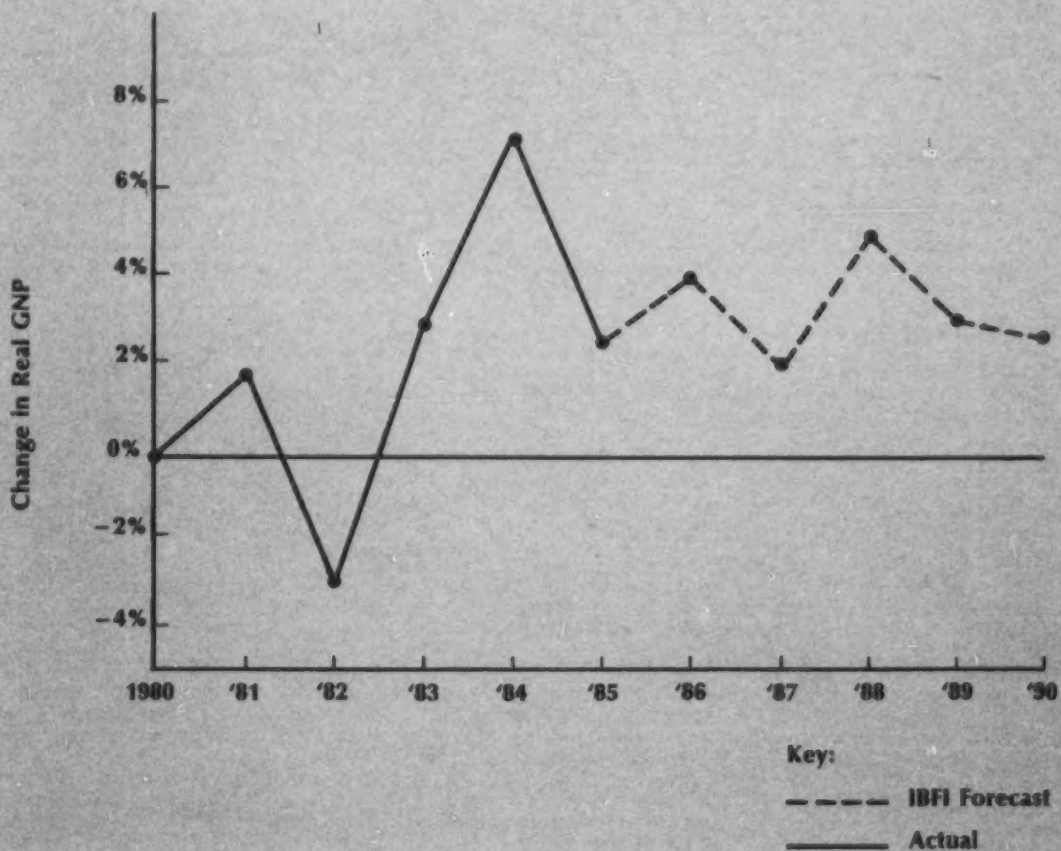
The yield on U.S. Treasury notes has fallen dramatically over the last four years. Ten-year Treasury notes that yielded 13% in 1982 were yielding just 9.3% at the close of 1985; by March 1986 this yield had fallen to 7.8%. This precipitous drop was prompted by the worldwide collapse in oil prices, and clearly indicates that investors are growing less fearful that inflation will resume in the foreseeable future.

Three-month Treasury notes declined from 10.7% in 1982 to 7% in March 1986. As it no longer became possible for investors to earn double-digit returns from so-called safe invest-

ments (e.g. T-Bills, money market funds), they began diverting their money into more risky investments, such as the stock market. With real estate and commodity prices down, this partly explains the durability of the current bull market on Wall Street; investors in search of double-digit returns currently have few alternatives other than to invest in common stocks.

Investors' confidence that inflation is "licked" has been the primary cause of the across-the-board drop in interest rates. The inflation outlook has been so positive that in March and April of 1986, the Federal Reserve cut its discount rate (on loans it makes to

FIGURE 12
CHANGES IN GNP, 1980-1990



Source: Department of Commerce, IBFI

member banks) from 75% to 70%, and then down to 65%. This action increased the amount of credit available in the economy; thus even the Federal Reserve is convinced, for now, that inflationary fears are groundless.

How long before the recovery ends and the next recession begins? If history were an infallible guide, interest rates should not have fallen as they did in 1985 and the first quarter of 1986. Historically, interest rates fall early in a recovery and then rise as the recovery gets older; this recovery is in its fourth year.

But is this a "normal" recovery? Of the eight expansions since World War II, the average duration has been 45 months. But this average is skewed by the mammoth 106-month expansion that lasted from 1961 through 1969, an expansion that was powerfully fed by the government's spending in support of the Vietnam War. If you throw out this atypical expansion, then the average length of the seven other post-W.W. II recoveries is about 36 months.

The current recovery entered its 40th month in March 1986. Therefore, some observers might argue that the next recession is lurking around the corner.

For instance, a survey by the National Association of Business Economists, conducted in April 1985, asked economists across the nation to predict when the next recession would begin. At that time, nearly 50% of the economists surveyed predicted it would begin in 1986. When the same question was asked just 8 months later, only 12% said they expected it to begin in 1986. Such a rapid shift in opinion by a group of experts proves two points:

- Economics is an art, not a science;
- Even the most thoughtfully constructed economic forecast is unlikely to be reliable beyond a 3-6 month time frame, due to the multitude of forces and unpredictable events that shape an economy. Whether it's

an earthquake in Mexico, the loss of the Challenger space shuttle and crew, or the meltdown of a nuclear reactor in the Soviet Union, the economic dislocation caused by such unanticipated events is enormous — and virtually impossible to predict.

A number of facts indicate that a recession is not in the offing in 1986, and probably not in 1987:

- The stock market, which is a leading indicator, continues to rise. Each recession in the last 40 years has been preceded by a substantial drop in the stock market.
- The substantial decline in the value of the U.S. dollar has given many domestic industries a measure of relief from foreign competition.
- The collapse of oil prices guarantees an inflation rate of 3% or less in 1986.
- Interest rates should either decline slightly or remain flat for the rest of the year. These factors support the conclusion that the U.S. economy will avoid a recession in 1986 and 1987. As Figure 12 illustrates, real GNP growth will be approximately 4.0% in 1986, while less robust growth is expected for the following year.

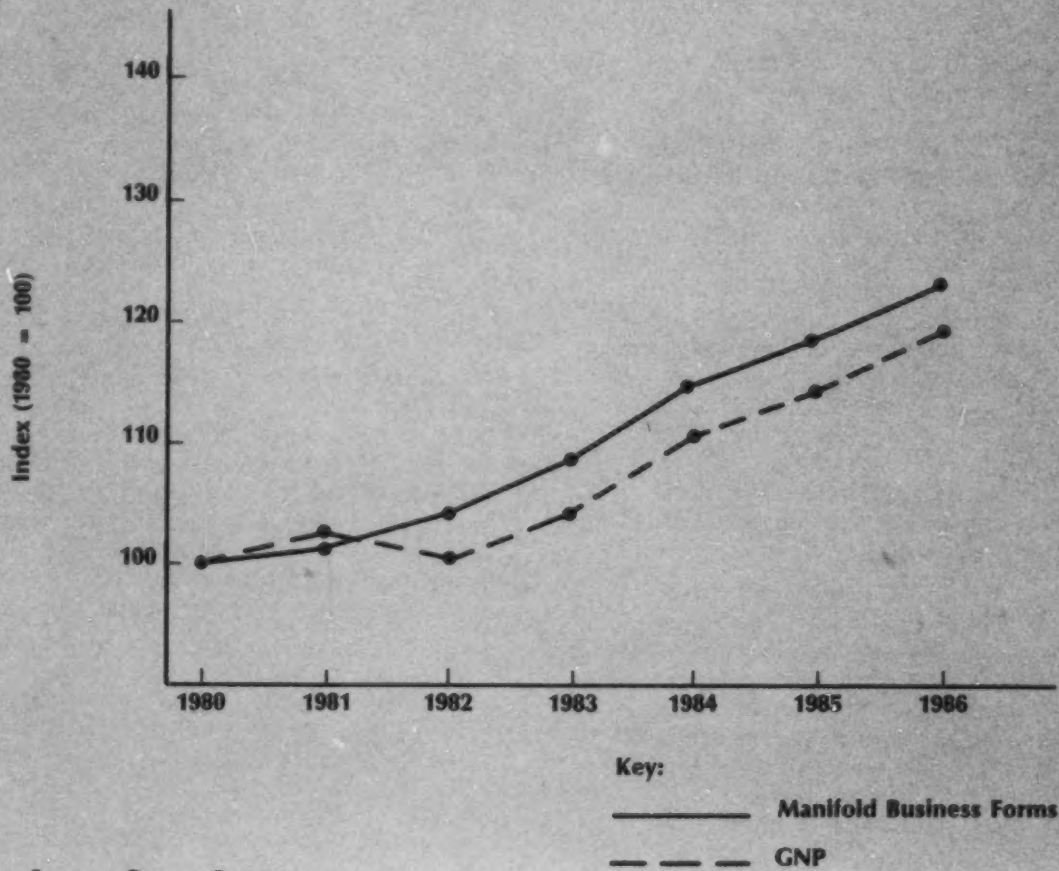
Projected real growth of GNP through 1990 is as follows:

IBFI Projection

1986	4.0%
1987	2.0%
1988	5.0%
1989	3.0%
1990	2.5%

Figure 13 plots the past relationship of forms demand to GNP growth; it also underscores the fact that the forms industry is essentially a cyclical industry, rising and falling with the ups and downs of the general economy.

FIGURE 13
GNP GROWTH VS. FORMS DEMAND



ELECTRONIC PRINTER INDUSTRY TRENDS

In 1985 the computer industry came crashing down to reality; dozens of computer manufacturers and software houses paid dearly for the mistake of assuming that 30% annual growth rates are guaranteed for everyone in the computer business. In fact, the computer industry's prolonged slump (and resulting shake-out) merely indicate that, as an industry, it's becoming more and more cyclical, with its fortunes rising and falling with the health of the general economy.

For the forms industry, the long-term impact of these changes in the computer industry will be profound. As the computer industry grows more competitive, the individual companies that survive and prosper will be extremely aggressive in their search for new markets. They will not be content to concede potentially attractive markets to competitors who are currently entrenched in such markets; for example, IBM's 1985 introduction of the Quietwriter II, a non-impact printer (40-60 characters per second) with graphics capability, clearly shows that it is eager to unseat the Japanese in the low end non-impact printer market.

As competition between IBM, the Japanese and other printer manufacturers heats up in the near future, one thing is certain to occur: the customer will benefit through lower prices and increased printer capabilities.

As the computer and printer industries evolve, increasingly sophisticated printing technology (e.g., the laser printer) will become more available to the typical office worker. This technology, combined with forms producing software, clearly poses a potential threat to forms demand. Whether it eventually becomes a serious threat depends on the willingness of forms users to forsake their traditional forms-buying habits.

Figure 14 provides an estimate of the installed base and continuous and cut sheet paper consumption for serial printers, through 1990. The serial printer category includes the following subsets:

- serial fully formed character printers (impact)
- serial dot matrix printers (impact)
- serial direct thermal and thermal transfer printers (non-impact)
- serial ink jet printers (non-impact).

Perhaps 95% of all serial printers are hooked up to personal computers; less than 10% of these printers are non-impact printers.

Figure 15 shows the enormous increase projected in the installed base of page printers. This expected demand will be fueled by lower prices and improved capabilities for these printers. Page printers that can produce 10 pages per minute — such as the Apple Laserwriter — now retail for under \$2,000, compared to a \$5,000 price tag just two years ago. The durability of these low-end laser printers is also improving: the recommended maximum duty cycle for the Canon engine that "drives" these printers has increased from 3,500 pages per month to 5,000 pages per month.

As a result of these product developments, the fastest growing segments of the page printer market will be in the lower to middle end segments — i.e., the less-than-10 pages per minute; 31-50 pages per minute; and 50-80 pages per minute printers.

Growth in shipments of the high-speed page printers (151+ pages per minute) such as

the IBM 3800 will be far less dramatic than what will occur at the low end of the market. However, considering the enormous quantity of paper these printers consume, any growth is significant. The further development of forms design software will help spur the growth of this segment, as will a gradual reduction in prices for these printers.

Figures 14 and 15 show cut sheet consumption increasing at a rate well in excess of continuous forms consumption. The IBFI Sales Index indicates that, in 1985, forms manufacturers' shipments of cut sheets equalled about 10% of the value of their forms shipments; in 1980, this share was in the 5-6% range. Also, the median shipment value of forms manufacturers' *custom cut sheet* shipments in 1985 was \$250,000 (for a sample of 52 companies that participated in IBFI's Stock Continuous, Specialty and Non-Printed Products Survey).

The API estimates that shipments of cut sheet paper products grew at an average rate of 5.5% per year from 1978 through 1985. For the rest of the 1980's, cut sheet paper shipments are likely to exceed this growth rate.

Looking to 1990. Today, forms manufacturers need to base their planning on how they believe the office automation process will evolve over the next 5 years. By 1990, it is estimated by International Data Corporation that the personal computer will account for one-third of the value of the installed base of computer systems in U.S. offices, while the large-scale mainframe systems will account for 23% of the value of the installed base. By comparison, it is estimated that in 1980 the personal computer accounted for just 3% of the value of the installed base and large-scale mainframes took up a whopping 45% of the installed base's value.

**FIGURE 14
INSTALLED BASE AND PAPER CONSUMPTION FOR SERIAL PRINTERS
1985-1990**

	<u>1985</u>	<u>1990</u>	<u>1985-90 CAGR</u>
Average Population (000)	15,200	38,885	21%
Continuous Form Tons (000)	246	388	9.6%
Cut Sheet Tons (000)	92	205	17.9%

CAGR = Compound Annual Growth Rate

Source: Dataquest

One of the major implications of the spread of the personal computer is the likelihood that eventually many of these units will be connected through local area networks (LANs). At present, most computer industry analysts estimate that less than 10% of personal computers are connected to local networks. What percent will be connected in 1990 or 1995? And how will this impact the demand for business forms?

Our estimate is that the move to local area networks will not accelerate until after 1990, due to the problems of gaining acceptance of a dominant industry standard for these net-

works. Once in place, LANs will probably have a net effect of increasing (rather than decreasing) the use of paper in the office. However, most of this increase will be in either the stock continuous or cut sheet categories.

Some of the effects of these rapid shifts in the make-up of the installed base have already been felt by the forms industry — most notably in the explosive growth of the short-run market, the displacement of custom continuous demand by stock continuous, and the growth of the cut sheet market.

FIGURE 15
AVERAGE INSTALLED BASE AND PAPER CONSUMPTION FOR PAGE PRINTERS
1985-1990

	<u>1985</u>	<u>1990</u>	<u>1985-90 CAGR</u>
Average Population (000)	148	2,180	71%
Continuous Form Tons (000)	419	790	13.5%
Cut Sheet Tons (000)	206	1,102	39.8%

CAGR = Compound Annual Growth Rate

Source: Dataquest

U.S. BUSINESS FORMS FORECAST, 1986-1990

The IBFI forecast for U.S. business forms sales through 1990 is presented in Tables 2 and 3. The forecast is expressed in constant January 1, 1986 dollars. It is based on research conducted by IBFI, and on information acquired from other sources about future installations of computer systems and printers.

Several key assumptions support this forecast. The first and most important is that the U.S. economy will avoid an outright recession for the rest of the decade; instead, it will grow somewhere in the 2-5% range each year. A second assumption is that the stock continuous segment will outperform the other major product segments of the industry over the forecast period. Third, the major impact on forms demand of the low-end laser printer will be felt after 1988.

Halfway through the 1980's, the forms industry is clearly in a period of tremendous change. This is reflected by the industry's changing product mix and product growth rates, as shown in Tables 2 and 3 below. In addition to selling one or more of the industry's four major product lines, a number of manufacturers are branching out into related product lines, such as direct mail. (In IBFI's Stock Continuous, Specialty and Non-Printed Products Survey, conducted in 1985, 32 companies reported substantial direct mail sales; for these companies, median 1985 sales of direct mail products was \$500,000.)

TABLE 2
U.S. BUSINESS FORMS SALES, 1985-1990
(Millions of Jan 1, 1986 Dollars at Shipment Values)

	1985	1986*	1987*	1988*	1989*	1990*
Custom Continuous	2,650	2,810	2,920	3,070	3,180	3,275
Stock Continuous	1,530	1,560	1,630	1,735	1,865	2,015
Unit Sets	1,415	1,470	1,490	1,530	1,555	1,565
Salesbooks, Pegboard	295	315	330	355	380	400
TOTAL	5,890	6,155	6,370	6,690	6,980	7,255

* Projections

Source: IBFI

The effects of change can also be seen in the management decisions of individual companies: witness the April 1986 announcement by Standard Register that it will purchase the forms division of another major manufacturer, Burroughs Corporation. Will this touch off a round of similar acquisitions? With the industry's overall capacity utilization rate under 70% and with some of its product lines at or near maturity, further industry consolidation should not be surprising.

In addition to changes in product mix and industry ownership, forms industry distribution channels are also in a state of flux. Some of the major manufacturers have committed major resources to relatively new channels,

such as telemarketing, mail-order catalogs, and retail outlets. The problem of profitably serving the growing short-run forms market is one that plagues virtually all forms manufacturers participating in this market.

As competition in the forms industry increases over the next 5-10 years, there will be intense pressure on forms manufacturers to squeeze the inefficiencies out of their distribution channels. For example, companies that sell direct to the end user will be forced to review their sales compensation plans to ensure that they reinforce the company's long-range objectives.

TABLE 3
U.S. BUSINESS FORMS SALES:
Year-To-Year Change, 1986-1990

	1985-86	1986-87	1987-88	1988-89	1989-90	1986-1990*
Custom Continuous	6.0%	3.9%	5.1%	3.6%	3.0%	23.5%
Stock Continuous	2.0%	4.5%	6.4%	7.5%	8.0%	31.7%
Unit Sets	3.9%	1.4%	2.7%	1.6%	0.6%	10.6%
Salesbooks, Pegboard	6.7%	4.8%	7.6%	7.0%	5.3%	35.6%
TOTAL	4.5%	3.5%	5.0%	4.3%	3.9%	23.1%

* Total Compounded Growth, 1986-90

Source: IBFI

APPENDICES

APPENDIX A

EXCERPTS FROM IBFI STOCK CONTINUOUS SURVEY (Conducted Oct.-Nov., 1985)

The following material is excerpted from the IBFI Stock Continuous, Specialty and Non-Printed Products Survey, published January 1986.

In October and November 1985, a confidential survey was sent to approximately 250 U.S. and Canadian forms manufacturers. The survey examined Stock Continuous, Specialty, and Non-Printed Products in an attempt to gauge the industry's current level of activity in these segments.

Stock Continuous Forms

The results presented below are based on the responses of 34 forms companies with stock continuous shipments accounting for at least 10% of their forms sales. *Respondents with stock continuous sales of less than 10% of total sales were excluded from the following analysis.*

Profile of the Stock Tab Sample

A total of 141 companies responded to the survey; the respondents' combined stock continuous shipments for 1985 exceeded \$1.1 billion, or about 70% of the total stock tab market.

The results of the stock continuous portion of the survey confirmed several commonly held opinions about the stock continuous forms market:

- One-part forms will show the most growth.
- Carbonless forms will continue to increase as a percentage of total multi-part forms.
- The competitive demands of the stock tab marketplace have driven the typical forms manufacturer out of this market, leaving it to stock tab specialists and the major forms manufacturers.

**TABLE A1
BREAKDOWN OF STOCK TAB
RESPONDENTS BY SALES VOLUME**

<u>Sales Volume</u>	<u>Percent of Companies in Sample</u>
Under \$3 Million	6%
\$3-8 Million	12%
\$8-15 Million	15%
\$15-40 Million	20%
Over \$40 Million	47%

Source: IBFI

Almost half of the firms in this sample have annual forms sales in the excess of \$40 million. Just 18% of these firms have sales of less than \$8 million, as shown in Table A1.

The average shipment value of the stock tab respondents' stock continuous sales in 1985 was \$42,283,000; the median value was \$16,000,000.

Stock Tab Shipments by Number of Parts

Table A2 provides a breakdown of the respondents' stock tab shipments by number of parts. As shown in the table, the respondents project an increase in one-part stock forms over the next 24 months — and a decrease in the share for all multi-part stock forms.

**TABLE A2
STOCK CONTINUOUS SHIPMENTS BY
NUMBER OF PARTS***

	1985 (Mean)	1987 Estimate (Mean)
1-part	67%	72%
2-part	15%	14%
3-part	8%	7%
4-part	7%	6%
5-part	2%	1%
6-part	1%	0.5%

*Based on shipment value; 1987 column does not equal 100% due to rounding.

Source: IBFI

The 3800 Market

The survey also asked the respondents about their stock continuous shipments to the "IBM 3800" market — i.e., continuous non-impact printers. The average (mean) percentage shipped to this market was 17.6%; the median was slightly lower at 15%. (One firm reported that 75% of its stock continuous shipments are to the 3800 market; 10 companies reported that less than 5% of their shipments go to this market.)

Of course, there is an opportunity for forms manufacturers to add value to the forms they sell to the "3800" market — by selling forms that are already printed. Table A3 describes the degree to which the survey respondents have been able to exploit this value-added opportunity.

**TABLE A3
PRINTED PAPER SHIPMENTS TO THE
"3800" MARKET**

	Mean	Median
Printed Paper	30.2%	20.0%
Non-Printed Paper	69.8%	80.0%
Total Shipments to 3800 Market	100%	100%

Source: IBFI

Carbonless Forms

The stock tab respondents also provided data on the carbonless/carbon-interleaved mix of their stock tab shipments. The results are in Table A4.

**TABLE A4
CARBONLESS/CARBON-INTERLEAVED MIX**

	Mean	Median
Carbonless:	29%	25%
Carbon-interleaved:	71%	75%
Total Multi-Part Stock Continuous Shipments:	100%	100%

Source: IBFI

Raw Material Inputs

Survey respondents were asked to provide a breakdown of the paper raw materials used in their stock continuous shipments, and to project how this mix of raw materials would change over the next 24 months. (See Table A5).

As the results in Table A5 indicate, the respondents expect a slight decrease in the

share of forms bond that goes into their stock tab shipments; this drop in forms bond is expected to be made up by an increase in carbonless (as expected) and groundwood mixes. The projected increase in groundwood mixes would probably be somewhat higher, if not for the depressed prices in the uncoated free sheet segment that prevailed throughout most of 1984 and 1985.

**TABLE A5
BREAKDOWN OF RAW MATERIAL INPUTS
FOR STOCK CONTINUOUS SHIPMENTS**

Materials	1985*	1987*
Forms Bond	79%	75%
Other Bond (#1 bond, rag content, etc.)	3%	3%
Groundwood mixes	6%	7%
Carbonless	8%	11%
Carbonless Groundwood	4%	4%
TOTAL	100%	100%
*Mean		

Source: IBFI

APPENDIX B HISTORICAL STATISTICS

Sales Data, Manifold Business Forms (Millions of Dollars at Shipment Values)

	Unit Sets	Custom Continuous	Stock Continuous	Sales And Other Books	TOTAL
1958	159.6	150.4	18.8	45.2	374.0
1963	265.5	239.4	53.9	39.6	598.4
1967	361.7	391.9	98.0	44.2	895.8
1970	468.4	493.4	185.0	52.3	1,199.1
1971	486.4	518.9	190.0	47.0	1,242.3
1972	547.3	578.2	204.9	51.5	1,381.9
1973	630.2	733.7	282.1	59.8	1,705.8
1974	776.2	966.1	432.2	78.8	2,253.3
1975	781.6	944.9	413.7	78.3	2,218.5
1976	849.1	970.3	521.1	84.8	2,425.3
1977	958.1	981.1	633.9	129.5	2,702.6
1978	1,065.1	1,194.8	680.3	137.9	3,078.1
1979	1,248.7	1,466.9	891.4	154.2	3,761.2
1980	1,323.1	1,657.9	1,031.7	174.1	4,186.8
1981	1,417.2	1,823.7	1,186.5	175.7	4,603.1
1982	1,390.3	1,886.0	1,229.3	184.0	4,689.6
1983*	1,250.0	2,020.0	1,305.0	260.0	4,835.0
1984*	1,350.0	2,465.0	1,490.0	280.0	5,585.0
1985	1,415.0	2,650.0	1,530.0	295.0	5,890.0

* Revised

APPENDIX C

These moving averages are presented to illustrate trends in business forms sales. They are weighted to make the charts sensitive to current pressures as well as previous results.

MONTHLY SALES AND TONNAGE INDEX 12 - MONTH WEIGHTED MOVING AVERAGE

